

THE LAW FIRM OF  
**LEE & HONG**  
A PROFESSIONAL CORPORATION

801 SOUTH FIGUEROA STREET  
FOURTHENTH FLOOR  
LOS ANGELES, CALIFORNIA 90017  
TELEPHONE: (213) 623-2221  
FACSIMILE: (213) 623-2211

---

**TELEFAX COVER SHEET**

---

June 16, 2003

Please deliver the following ( 10 ) page(s) (including this cover page) to:

Name: **Mr. Luan C. Thai**

Company: **United States Patent and Trademark Office  
Art Unit 2827**

**FAX RECEIVED**

**JUN 16 2003**

Re: **Application Serial No. 09/755,436**

**TECHNOLOGY CENTER 2800**

Telefax No.: (703) 308-7722

Telephone No.: (703) 308-1211

Message: **Please find attached the response to the Office Action, dated October 4, 2002, which issued with respect to the above-referenced patent application. This response was mailed on January 2, 2003, and was received by the OIPE on January 9, 2003, as indicated by the date stamp on the return postcard (see first page of attachment). If you have any questions, please contact us at your earliest convenience. Thank you.**

From: **Amit Sheth**

Telephone No.: (213) 623-2221

Telefax No.: (213) 623-2211

**CONFIDENTIALITY NOTE:** The information contained in this FAX transmission is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential or exempt from disclosure under applicable Federal or State Law. If the reader of this transmission is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this transmission is strictly prohibited.

If you receive this transmission in error, please notify us immediately by telephone at (213) 623-2221. Thank you.

S.N. 09/755,436 File No. 2078-3-02 Date Mailed 01/02/03 By: AS  
 Title: TRANSISTOR WITH T-GATE STRUCTURE AND METHOD FOR...  
 (Client Name) DOO IP OFFICE

The Following, due \_\_\_\_\_ in the U.S. Patent & Trademark Office was received in the Patent & Trademark Office on the date stamped hereon:

☒ Amendment  
☐ Preliminary Amendment  
☐ PCT Application Including  
 Pages Spec. \_\_\_\_\_ Page Abstract \_\_\_\_\_ Claims  
☐ Application for Patent Including  
 Pages Spec. \_\_\_\_\_ Page Abstract \_\_\_\_\_ Claims  
☐ Declaration, Affidavit of Oath (\_\_\_\_\_ Page(s))  
☐ Assign: Ck. No. \_\_\_\_\_ for \$ \_\_\_\_\_  
☐ Verified Statement  
☒ Letter of Transmittal  
☐ Amendment Under 37C.F.R. 1.312(a)  
 Check No. \_\_\_\_\_ for \$ \_\_\_\_\_  
 Check No. \_\_\_\_\_ for \$ \_\_\_\_\_  
 Check No. \_\_\_\_\_ for \$ \_\_\_\_\_

Drawings: # of Sheets \_\_\_\_\_  
☐ Formal ☐ Informal  
☐ Issue Fee Transmittal  
☐ Letter Re \_\_\_\_\_  
☐ Notice of Appeal  
☐ Petition for \_\_\_\_\_  
☐ Advance soft copy order  
 Ck. No. \_\_\_\_\_ for \$ \_\_\_\_\_  
☐ Certified Copy, # \_\_\_\_\_ of Docs  
☐ Priority \_\_\_\_\_  
☒ SUBSTITUTE ABSTRACT

FAX RECEIVED

JUN 16 2003

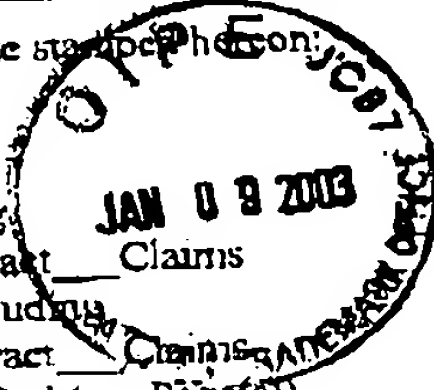
TECHNOLOGY CENTER 2800

S.N. 09/755,436 File No. 2078-3-02 Date Mailed 01/02/03 By: AS  
 Title: TRANSISTOR WITH T-GATE STRUCTURE AND METHOD FOR...  
 (Client Name) DOO IP OFFICE

The Following, due \_\_\_\_\_ in the U.S. Patent & Trademark Office was received in the Patent & Trademark Office on the date stamped hereon:

☒ Amendment  
☐ Preliminary Amendment  
☐ PCT Application Including  
 Pages Spec. \_\_\_\_\_ Page Abstract \_\_\_\_\_ Claims  
☐ Application for Patent Including  
 Pages Spec. \_\_\_\_\_ Page Abstract \_\_\_\_\_ Claims  
☐ Declaration, Affidavit of Oath (\_\_\_\_\_ Page(s))  
☐ Assign: Ck. No. \_\_\_\_\_ for \$ \_\_\_\_\_  
☐ Verified Statement  
☒ Letter of Transmittal  
☐ Amendment Under 37C.F.R. 1.312(a)  
 Check No. \_\_\_\_\_ for \$ \_\_\_\_\_  
 Check No. \_\_\_\_\_ for \$ \_\_\_\_\_  
 Check No. \_\_\_\_\_ for \$ \_\_\_\_\_

Drawings: # of Sheets \_\_\_\_\_  
☐ Formal ☐ Informal  
☐ Issue Fee Transmittal  
☐ Letter Re \_\_\_\_\_  
☐ Notice of Appeal  
☐ Petition for \_\_\_\_\_  
☐ Advance soft copy order  
 Ck. No. \_\_\_\_\_ for \$ \_\_\_\_\_  
☐ Certified Copy, # \_\_\_\_\_ of Docs  
☐ Priority \_\_\_\_\_  
☒ SUBSTITUTE ABSTRACT



FORM PTO-1083

PATENT

Attorney Docket: 2078-3-02

In re application of:  
Jin-Koo Rhee, et. al.Art Unit: 2827  
Examiner: Luan C. Thai

Serial No: 09/755,436

Filed: January 4, 2001

For: TRANSISTOR WITH  $\pi$  GATE  
STRUCTURE AND METHOD FOR  
PRODUCING THE SAME

FAX RECEIVED

JUN 16 2003

TECHNOLOGY CENTER 2800

BOX NON-FEE:

ASSISTANT COMMISSIONER FOR PATENTS

Washington, D.C. 20231

Sir:

Transmitted herewith is an AMENDMENT in the above-identified application.

- ☒ Small entity status of this application under 37 CFR 1.9 and 1.27 has been established by a verified statement previously submitted.
- ☐ A verified statement to establish small entity status under 37 CFR 1.9 and 1.27 is enclosed.
- ☐ A petition for extension of time for \_\_\_ month(s) is enclosed.
- ☐ An information disclosure statement in accordance with 37 CFR 1.56 and 1.97 is enclosed.
- ☒ No additional fee is required.

The fee has been calculated as shown below:

	(Col. 1) CLAIMS REMAINING AFTER AMENDMENT		(Col. 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Col. 3) PRESENT EXTRA*	LG/SM \$ ENTITY FEE	ADD'L FEE DUE
TOTAL CLAIMS FEE	8	-	20	0	LG=\$18 SM=\$9	\$ 0
INDEPENDENT CLAIMS FEE	1	-	3	0	LG=\$84 SM=\$42	\$ 0
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIMS					LARGE ENTITY FEE = \$280 SMALL ENTITY FEE = \$140	\$ 0
TOTAL						\$ 0

\* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.

\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space.

\*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, write "3" in this space. The "Highest Number Previously Paid For" (Total or Independent) is the highest number found from the equivalent box on Col. 1 of a prior amendment or the number of claims originally filed.

- ☐ A check in the amount of \$\_\_\_\_\_ to cover the filing fee is enclosed.
- ☐ A check in the amount of \$\_\_\_\_\_ to cover the extension fee is enclosed.
- ☐ A check in the amount of \$\_\_\_\_\_ to cover the information disclosure statement fee is enclosed.
- ☐ A check in the amount of \$\_\_\_\_\_ to cover the petition fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 502290. A duplicate copy of this sheet is enclosed.
- ☒ Any filing fees under 37 CFR 1.16 for the presentation of extra claims.
- ☒ Any patent application processing fees under 37 CFR 1.17.

Respectfully submitted,  
LEE & HONGDate: January 2, 2003By: Amit Sheth

Amit Sheth

Registration No. 50,176

Attorney for Applicant(s)

221 N. Figueroa Street, 11th Floor  
Los Angeles, California 90012  
Telephone: (213) 250-7780  
Facsimile: (213) 250-8150

Attorney Docket No.  
2078-3-02

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Jin-Koo Rhee et al.

Serial No: 09/755,436

Filed: January 4, 2001

For: TRANSISTOR WITH  $\pi$  GATE  
STRUCTURE AND METHOD FOR  
PRODUCING THE SAMEArt Unit: 2827  
Examiner: Luan C. Thai

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Assistant Commissioner for Patents  
Washington D.C. 20231, on

January 2, 2003

Date of Deposit

Amit Sheth

Name

*Amit Sheth*

Signature

01/2/03

Date

AMENDMENT

FAX RECEIVED

Box Non-Fee  
Assistant Commissioner for Patents  
Washington, D.C. 20231

JUN 16 2003

TECHNOLOGY CENTER 2800

Dear Sir:

In response to the Office Action dated October 4, 2002, in connection with the above-identified application, please enter and consider the following amendments and remarks:

IN THE ABSTRACT:

Please substitute the abstract of the disclosure originally filed with the present application with the substitute abstract attached hereto.

IN THE CLAIMS:

Please amend claim 1 and add new claims 3-6 as follows:

Please substitute the claims listed below for the pending claims with the same number.

Marked-Up Claim:

1. (Amended) A transistor [with  $\pi$  - gate structure, with a GaAs wafer formed on the bottom with GND, which is grounded to source layers formed on the top surface of the GaAs wafer by the process of back side via-hole, with a drain formed between the source layers, the top part of which has an air-layer, and with a gate shaped, as the result of using the air bridge